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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,572	12/09/2004	Josef H Burgert	5003073.091.US2	2696
29737	7590	02/05/2007		
SMITH MOORE LLP P.O. BOX 21927 GREENSBORO, NC 27420			EXAMINER BERNSHTEYN, MICHAEL	
			ART UNIT	PAPER NUMBER
			1713	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/05/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/517,572	BURGERT, JOSEF H	
	Examiner	Art Unit	
	Michael Bernshteyn	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 17-19, 21 and 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 17-19, 21 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action follows a response filed on October 16, 2006. Applicants have amended claims 1-6, 17-19, 21 and 27, claims 13 and 14 have been cancelled.
2. Claims 1-6, 17-19, 21 and 27 are pending.

Claim Rejections - 35 USC § 112

3. The text of this section of Title 35, U.S.C. not included in this action can be found in a prior Office Action.
4. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term 'substantial' used in all above claims is a relative term, which renders the claims indefinite. The term 'substantial' is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not reasonably appraised of the scope of the invention.

Claim Rejections - 35 USC § 103

5. The test of this section of Title 35, U.S.C. not included in this action can be found in a prior Office Action.
6. Claims 1-7, 17-19, 21 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (U. S. Patent 5,439,993) in view of Burgert et al. (U. S.

Patent 5,629,377), for the rationale recited in paragraph 3 of Office Action dated on April 13, 2006, and comments below.

Response to Arguments

7. Applicants traverse the rejection of claims 1-7, 17-19, 21 and 27 under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (U. S. Patent 5,439,993) in view of Burgert et al. (U. S. Patent 5,629,377). Applicant's arguments have been fully considered but they are not persuasive.

8. Applicants contend that Ito et al. (the first reference) discloses the preparation of water-absorbent polymers by polymerizing acrylic monomers in the presence of certain metal salts. The amount of metal salt is taught to be at least 0.001% by weight based on the acrylic monomer. The amount 0.001 weight percent can also be expressed as 10 ppm (page 9, 3rd paragraph). The invention involves adding low amounts, e.g. for some claims specifically from about 1 to about 3 ppm, of iron ions during the process of manufacturing a superabsorbent polymer. However, Ito does not teach or suggest that adding less than 10 ppm of iron ions to the manufacturing process will result in reduced residual monomer content of the polymer. Surprisingly, the inventor discovered that adding low amounts of iron ions to the process of Burgert results in additional reduction of residual monomer levels. Nothing in the prior art teaches or suggest that combining the teachings of Ito and Burgert, by adding iron ions to the process of Burgert, would result in a polymer having further reduced residual monomers levels compared to the polymer of Burgert (page 10, 2nd paragraph).

9. In response to applicant's arguments it is worth to mention that Ito discloses the following: "The amount of the metallic salt added varies depending on the monomer concentration and the degree of neutralization. However, it is, **in general, 0.0001 to 3% by weight**, preferably 0.001 to 1% by weight based on the acrylic monomer" (col. 6, lines 27-32). Therefore, Ito clearly discloses that the range of the added metallic salt is **1 ppm** to 30.000 ppm, and the claimed range is completely within these amounts.

It is well settled that an applied reference may be relied upon for all that it would have reasonably suggested to one of the ordinary skill in the art, including not only preferred embodiments, but less preferred and even non-preferred. **Merck & Co v. Biocraft Labs, Inc.**, 874 F.2d 804, 807, 10 USPQ2d 1843, 1846 (Fed. Cir.).

It is noted that the amount of the added metallic salt is a result effective variable, and therefore, it is within the skill of those skilled in the art to find the optimum value of a result effective variable, as per **In re Boesch and Slaney** 205 USPQ 215 (CCPA 1980). See also *Peterson*, 315 F.3d at 1330, 65 USPQ2d at 1382: "The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages."

10. Furthermore, it is noted that it is axiomatic that one who performs the steps of a process must necessarily produce all of its advantage. Mere recitation of a newly discovered property or function what is inherently possessed by the things or steps in the prior art does not cause a claim drawn to those things to distinguish over the prior art. **Leinoff v. Louis Milona & Sons**, Inc. 220 USPQ 845 (CAFC 1984).

The difference between all of the processes in claims 1-7 mainly is the sequence of steps. However, since applicant does not demonstrate the criticality of the sequence of steps, the selection of any order of performing process step is prima facie obvious in the absence of unexpected results. *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946) and "Selection of any order of mixing ingredients is prima facie obvious". *In re Gibson*, 39 F. 2d 975, 5 USPQ 230 (CCPA). See MPEP § 2144.04.

11. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

12. It is worth to mention that Examiner has cited particular columns and line numbers or figures in the references as applied to the claims for the convenience of the applicant. Although the specified citations are representative of the teaching in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, **to fully consider the references in entirety as potentially teaching all or part of the claimed invention**, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

13. In the light of the discussion above, the rejection of record has not been withdrawn. The rejection remains in force.

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Bernshteyn whose telephone number is 571-272-2411. The examiner can normally be reached on M-F 8-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1713

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Bernshteyn
Examiner
Art Unit 1713

MB
01/30/2007


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